ASARCO / SUPERFUND MEETING PARTICIPANTS - JUNE 6

NAME	AFFILIATION	PHONE NUMBER
Cyndy King	IR	442-7190
Cliff Lamping	Ranchers	227-6648
Dolly Lamping		227-6648
Rob Greene	St. Water Quality Bur	444-2406
Jim Gillie		443-4150
Dennis Hatfield	Farmer	227-5121
Dave Duel	President U.S.W.A.	227 6749
Doug Dollhopf	MSU, Bozeman	994 4821
Tom Kokoruda	ASR Employee	227-5504
M.K.B[illegible]		933-5954
RICK STROBEL	ASARCO	933-5361
JON NICKEL	ASARCO	227-5311
Tom McIntyre	ASARCO	227-5311
Jim Lingohr	ASARCO	227-6966

Introduce self

public mtg 6/6/84
E Helena

Purpose of meeting: discuss EPA Superfund activities and those proposed

Introduce - Skie, Dalhopf, Rob Greene, etc.

1) CERCLA

aimed at identifying hazardous wastes improperly disposed

clean up those wastes that require it

not only drum sites but mining sites as well

working on 4 sites in Montana
maybe 3 more

Also, called Superfund
the fund
responsible parties pay the fund back

2) The East Helena Superfund site
(ASARCO has made many improvements

Smelter in operation for 100 yrs
Pb, cd, As other metals
risks associated with these metals
so, went through hazard ranking
East Helena on priority list

once on the list a study process begins

3) RI / FS - where we are now

from flip chart

4) ASARCO participation

all
in-part
none-at-all

all or in-part = EPA over-view

none-at-all = EPA goes for cost recovery

REMEDIAL INVESTIGATIONS IN THE EAST HELENA AREA

I. INTRODUCTION

A. Framework of the Superfund Program

CERCLA legislation recognized that spills and improper disposal in the past has led to the contamination of air, soil, and water at levels that may pose a hazard to human health, public welfare, and the environment. As a consequence, a phased approach has been developed for response:

1) A preliminary assessment is made to quickly determine (at a low cost) if a site has sufficient potential for harm that further expenditures are warranted.

2) If risks are substantial, a remedial investigation is conducted to characterize the site with respect to contaminant distribution, mobility, and fate.

3) If risks continue to appear substantial, a feasibility study is conducted to identify cost-effective approaches to mitigation.

4) The selected alternative is designed and constructed.

B. Objectives of this Study

Activities at East Helena have reached the remedial investigation stage. The remedial investigation has been designed in two phases:

1) Phase 1 is focused on the collection and evaluation of sufficient data to conduct an endangerment assessment -- What are the risks to health, welfare, and/or the environment.

2) Phase 2 is focused on providing all required data to complete a feasibility study of remedial action alternatives.

Intent is to determine need for and nature of restoration activities, not to affect current operation of the Smelter.

C. Dimensions of the Study

Efforts to date have focused attention on three key pathways by which heavy metals may be reaching man. Other pathways and atmospheric studies are not being considered in this work.

be taken. These will be divided into four sections: a surface section comparable to the surface soil samples so total surface soil values will be 115 + 35 = 150. Two sections in the root zone. One section deeper than the root zone.

Thirty-five crop or vegetation samples will be taken at the soil core sampling sites. These will demonstrate how metals have been taken up by plants throughout the local area and provide some understanding of the correlation between metal levels in the root zone and subsequent levels in plants.

Blood samples will be collected from about 400 animals from 10 area herds to determine metal residual levels.

B. Analyses

Samples will be analyzed for the three metals of primary concern: lead, cadmium, and arsenic. In addition, a scan will be made for other metals which may have been present in the initial emissions. If preliminary analyses reveal significant levels of any other metals, they will subsequently be monitored. Other analyses will include those that define geochemistry (natural conditions that will affect the mobility of metals) and those that define fertility. The results of these analyses will help interpret why metal distributions are as they are found and help predict how metals may move in the future.

C. Immediate Schedule

Describe events as illustrated on the flip chart.

Note that ASARCO, Inc., will conduct the surface and groundwater sampling. Battelle and Montana State University will conduct the soil, crop, and livestock sampling. Soil and crop sampling activity for June 18 will require access to private property. As a consequence, Mr. Gaynor Dawson of Battelle will arrive in the area on June 14 to request permission for access and guidance on the least disruptive approaches to desired sampling locations. Cooperation will be greatly appreciated.

III. FUTURE EVENTS

Describe items listed on the last flip chart. Emphasize that ultimate goal is to restore area and crop quality, not to shut down the Smelter. Give them your phone number and location as the point of contact for all inquiries about the program.

0142440

1) Overland Runoff -- Snow melt and surface runoff may transport contamination to surface waters used for drinking or irrigation purposes.

2) Groundwater -- Precipitation may carry metals down through the soil to groundwaters which supply surface waters, potable wells, or irrigation systems.

3) Foodchain Uptake -- Metals in soil and/or irrigation water may be taken up by crops or forage which are consumed by people or livestock.

In order to investigate these possibilities, studies are planned for soil, water, and crops. The significance of overland runoff will be determined on the basis of metal content in surface soils, the presence of metals in snow melt, and the distribution of metals in water and sediments of the local area. The significance of groundwater transport will be determined by direct analysis of metals in water from monitoring wells, and by measuring metal levels at four different depths in the soil column at various sites. Foodchain uptake will be characterized both by direct measurement of metals in vegetation and livestock, and by measurement of the availability of metals (ease of extraction) in soils taken from the root zone of crops and forage.

II. SAMPLING PROGRAM

A. Sample Sites

Sample sites have been selected throughout the East Helena area to provide a single, consistent set of data on the current distribution of metals in soil and water.

Surface water samples will be taken in the two local drainages (Wilson Ditch and Prickly Pear Creek), in Lower Lake, and in the ponded waters after rainfall or snow melt events. Samples will be taken several times over an annual cycle as well as after specific precipitation events.

Groundwater samples are planned from ten wells located at and downflow of source areas. These wells will be installed specifically to support the study. Samples will be taken quarterly at a minimum.

Soil samples have been specified to determine both lateral and vertical distribution of metals. To clearly delineate the zone where lead levels exceed 1,000 mg/Kg, 115 surface samples are specified. Sample sites will be roughly 1,500 ft apart around the Smelter. The separation will increase to over 5,000 ft (~1 mile) away from the Smelter. To determine the vertical distribution of metals at various distances from the Smelter, 35 soil cores will

Community Relations